

REMARKS/ARGUMENTS

Claims 38, 40, 41, 43, 45-48, 50-52 and 54-74 are pending. Claims 60-74 remain withdrawn from consideration due to a Restriction Requirement. By this Amendment, the specification and claim 38 are amended. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

In paragraph 2 of the Office Action, the drawings were objected to based on alleged failure to show claimed features in the drawings. By this Amendment, claim 38 has been amended so as to eliminate reference to “a container arrangement”. The claimed pumping device for generating a flow as recited in claim 38, as well as the elastomeric container set forth in claim 45, are clearly shown in the drawings.

In addition, in regard to the Examiner’s second objection, in paragraph 2 of the Office Action, the Examiner’s helpful suggestion regarding amendment to the paragraph beginning at page 6, line 22 has been adopted.

Reconsideration and withdrawal of the drawing objections are respectfully requested.

Claims 45-52 were rejected under 35 U.S.C. §112, second paragraph. Applicants respectfully submit that the Amendment to claim 38 eliminating reference to “a container arrangement” obviates the rejection. The amendment to claim 38 in this regard is intended to improve clarity.

Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 38, 40, 41 and 57 were rejected under 35 U.S.C. §102(b) over Corbin et al. (U.S. Patent No. 3,252,623). This rejection is respectfully traversed.

According to the Office Action, Corbin et al. discloses an infusion system having a container arrangement 10, a pumping device 14, an adjusting device 24 and a command and

control device 45. The adjusting device comprises a valve arrangement in the form of a solenoid valve which is normally closed. The command and control device operates the valve arrangement to command pulse actuation of the valve arrangement. The command and control device is provided with an electric supply apparatus which is connected to command and control device by channel 35.

In reply to the April 20, 2007 Office Action, Applicants pointed out that the device 14 disclosed in Corbin et al. is a drop forming device and does not constitute a pumping device. The Examiner's response to this position is that Corbin et al.'s device 14 can be considered to be a pumping device as it is an apparatus that forces or draws a liquid from or to another part of the system where gravity is what allows the liquid to be moved.

Applicants respectfully traverse the Examiner's position. The device 14 disclosed in Corbin et al. is able to generate a flow of solution into the catheter 23 only if it is placed at a level higher than the level at which the catheter is inserted in the body of the patient. In addition, the level at which the device 14 is placed must be sufficiently high, with respect to the catheter 23, to allow the pressure of the liquid in the catheter to be higher than the blood pressure in the blood vessel into which the catheter is inserted. If the level of the device 14 is not sufficiently high, a flow of liquid into the catheter cannot be obtained.

By contrast, the pumping device recited in claim 38 does not require placement at a level higher than the level at which the catheter is inserted into the body of the patient, because the pressure of the liquid in the catheter depends only on structural features of the pumping device and does not depend on the location of the pumping device.

Stated differently, the pumping device is able to generate a flow of liquid in the catheter even if it is placed at the same level as, or even at a level lower than, the level at which the

catheter is inserted into the patient body. This operation is not possible for the device 14 of Corbin et al.

In addition, Corbin et al. does not disclose that the pulsed actuation is made according to an infusion cycle of the pharmacological solution.

Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 43 and 54-56 were rejected under Corbin et al. in view of Franetzki et al. (U.S. Patent No. 4,270,532). In addition, claims 45-48 and 50-52 were rejected under 35 U.S.C. §103(a) over Corbin et al. in view of Kanai et al. (U.S. Patent No. 6,367,502). Further, claims 58 and 59 were rejected under 35 U.S.C. §103(a) over Corbin et al. in view Crankshaw et al. (U.S. Patent No. 4,741,732).

These rejections are respectfully traversed at least for the reason that the claims rejected herein depend from claim 38, either directly or indirectly. In addition, the additional cited art does not teach or suggest the claimed subject matter nor do they make up for the deficiencies noted above in relation to Corbin et al.

For example, Franetzki et al. discloses an infusion system for diabetes therapy having a container, a pumping device and a command and control device actuating the pumping device for injecting a pharmacological solution (insulin) into the body of a patient. Franetzki et al. does not disclose or suggest to control the flow of pharmacological solution by a pulsed actuation of a valve arrangement, wherein the pulsed actuation is made according to an infusion cycle of the pharmacological solution, as recited in claim 38.

Kanai et al. discloses an infusion system having a container arrangement and a pumping device comprising an elastomeric container 11 which is supported on a support element 10 associated with a transparent containing and protection element 2. The infusion system further

comprises a valve mechanism 40 connected to the pumping device for manually regulating the flow of liquid dispensed by the pumping device.

Kanai et al. does not disclose or suggest to regulate automatically the flow of liquid dispensed by the pumping device by pulsed actuation of the valve mechanism controlled by the command and control device according to an infusion cycle of the pharmacological solution, as recited in claim 38.

Crankshaw et al. discloses a flow control device with a command and control device 120 having rechargeable batteries for controlling the flow of the liquid. Crankshaw et al. does not disclose or suggest regulating the flow of liquid dispensed by the flow control device by pulsed actuation of a valve according to an infusion cycle of the pharmacological solution, as recited in claim 38.

Reconsideration and withdrawal of the rejections are respectfully requested.

In view of the above amendments and remarks, Applicants respectfully submit that all the claims are patentable and that the entire application is in condition for allowance.

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140 under Order No. PTB-4017-41.

Should the Examiner believe that anything further is desirable to place the application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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